

DECOMPOSITION

PN - JP4279179 A 19921005
 TI - DECOMPOSITION OF FLUOROCARBONS
 FI - A62D3/00 ; B01D53/34&134E ; B01J19/08&E ; B01J21/06&A ; B01J27/12&A
 PA - TOWA KAGAKU KK
 IN - YAMAZAKI TSUNEHIO; MIZUE YASUJIRO; SETO SATORU
 AP - JP19910050533 19910222
 PR - JP19910050533 19910222
 DT - I

ABSTRACT

AN - 1992-378023 [46]
 TI - Method for decomposition of freon - comprising reaction with water vapour while irradiating with plasma discharge
 AB - J04279179 Method comprises reacting organic halogen such as freon, halon, etc. with water vapour in the presence of catalyst under irradiation of plasma discharge.
 - Pref. the plasma discharge is conducted in N₂ atmos. or in air at room temp. to 1000 deg.C. The plasma includes HF plasma, low frequency plasma and micro wave plasma. The organic halogen cpd. is introduced into the gas stream together with water vapour. The catalyst includes Ni type, titania type, Cr oxide type, alumina type, Pd type, etc.
 - USE/ADVANTAGE - Freon, halon, etc. can be decomposed at room temp. rapidly without producing toxic by-prod. and without damage to appts. by HCl, etc. with the use of low energy. (Dwg.0/1)
 IW - METHOD DECOMPOSE FREON COMPRISE REACT WATER VAPOUR IRRADIATE PLASMA DISCHARGE
 PN - JP4279179 A 19921005 DW199246 A62D3/00 003pp
 - JP6069499B B2 19940907 DW199434 A62D3/00 004pp
 IC - A62D3/00 ; B01D53/34 ; B01J19/08 ; B01J21/06 ; B01J27/12
 MC - E10-H02 E11-P E11-Q02 J04-E01 J09-C N01-C02 N02-C N02-F N03-B N03-D
 CC - E36 J09 P35
 PA - (TOWA-N) TOWA KAGAKU KK
 AP - JP19910050533 19910222; JP19910050533 19910222; [Based on J04279179]
 PR - JP19910050533 19910222

CLAIMS

PN - JP4279179 A 19921005
 TI - DECOMPOSITION OF FLUOROCARBONS
 AB - PURPOSE: To enable decomposing fluorocarbons and halons efficiently at a comparatively low temperature by using various catalysts under plasma discharge to effect reaction with water vapor.
 - CONSTITUTION: Low frequency discharge, high frequency discharge, microwave discharge, etc., are used as plasma discharge, and inert gases such as nitrogen, argon and helium are desirable as atmospheric gas other than reaction gases and air, etc., can be used too. A catalyst to be used may be any of nickel type, titania type, chromium oxide type, alumina type and palladium type catalysts, etc., so as not to be limited but a catalyst having halogen resisting properties is desirable because hydrogen fluoride and hydrogen chloride are generated as reaction products. 1.5g of titania-zirconia type catalyst 5 is placed in a bell-jar type reactor 3 equipped with a plasma generation power supply and electrode, CFC-113 and water vapor are injected so as to be 400ppm and 3000ppm in 1.2Torr of nitrogen, respectively, and a decomposition reaction is caused to take place under plasma discharge.
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 PA - TOWA KAGAKU KK
 IN - YAMAZAKI TSUNEHIO; others: 02
 ABD - 19930217
 ABV - 017079
 GR - C1027
 AP - JP19910050533 19910222

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 AB - J04279179 Method comprises reacting organic halogen such as freon, halon, etc. with water vapour in the presence of catalyst under irradiation of plasma discharge.
 - Pref. the plasma discharge is conducted in N2 atmos. or in air at room temp. to 1000 deg.C. The plasma includes HF plasma, low frequency plasma and micro wave plasma. The organic halogen cpd. is introduced into the gas stream together with water vapour. The catalyst includes Ni type, titania type, Cr oxide type, alumina type, Pd type, etc.
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B 0 1 J 19/08	E	6345-4G		
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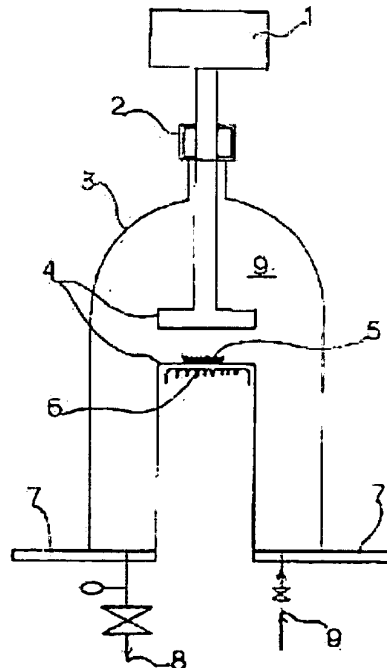
(74) 代理人 弁理士 三原 隆 (外1名)

(54) 【発明の名称】 フロン類の分解方法

(57) 【要約】

【目的】 この発明は、フロン、ハロンなどの有機ハロゲン化合物を、プラズマ放電下で触媒を用いて水蒸気と反応させて分解反応を生成させることを目的としている。

【構成】 プラズマ発生電源及び電極を具備した反応試験装置に触媒を置き、不活性ガス中にフロン、又はハロンを水蒸気と注入してプラズマを発生させてこれら有機ハロゲン化合物の分解反応を生成させる方法である。



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